

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	:	Scott C. Harris	Group Art Unit 2157
Appl. No.	:	09/683,599	
Filed	:	January 23, 2002	
For	:	VISUAL DATABASE FOR ONLINE TRANSACTIONS	
Examiner	:	S. Halim	

APPLICANTS BRIEF ON APPEAL

United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313

Dear Sir:

In response to the Notice of non-complaint appeal brief dated September 19, 2007, Applicant resubmits the appeal brief, with an expanded summary of claimed subject matter that maps all limitations of the independent claims as required by 37 CFR 41.37(c)(1) (v), which reads "Summary of claimed subject matter. A concise explanation of the subject matter defined in each of the independent claims involved in the appeal, which must refer to the specification by page and line number, and to the drawing, if any, by reference characters."

This Appeal Brief again perfects the Notice of Appeal which was originally filed on February 21, 2007.

The Appeal Brief fee was previously paid (small entity). Please charge any unpaid charges to deposit account 50-1387.

The Appeal Brief sections required by Rule 41.37 follow.

Real Party in Interest

The application is not assigned, and hence the inventor Scott C. Harris is the real party in interest.

Related Appeals and Interferences

There are no known related appeals and/or interferences,

Status of Claims

Claims 1-20 are pending in the case. Each of these claims have been rejected over prior art. Each of claims 1-20 are appealed herein.

Status of Amendments

No amendment was filed subsequent to the final rejection dated November 22, 2006.

Summary of Claimed Subject Matter

Claim 1 requires a client that allows entering image information. See page 4, last five sentences (paragraph 22 of the specification). This is also described in paragraph 16 of the specification, which explains the client and server scenario. The clients are shown in figure 1 as elements 120, 122 and 124.

Claim 1 requires a server that stores image information as a database of information of an image. See page 4 of the specification, lines 10-16 (paragraph 18). The server is also shown as 100 and figure 1. Figure 1 also shows this database of information with pictures 108 and text 107.

The server is connected to the client, see figure 1 which shows the connection 110 between the server and the client.

The server uses the image information to search a database "for items to be purchased which meet criteria specified in said image information and forming search results based on said image information". Page 6, lines 9-13, paragraph 30, describes searching the database in this way using the entered information. This describes how the search of the database may use different kinds of image searching techniques such as models, comparisons, vectors, or other techniques. This is also described in general in paragraphs 22-27.

The search results are formed based on the image information, see step 220 in figure 2 which explains returning the results, also shown in paragraph 30, page 6 lines 9-10.

Claim 10 requires entering image information to a client on the network, see page 4 last five sentences (paragraph 22 of the specification). This is also described in paragraph 16 of the specification, which explains the connections between the client and server. The clients are shown in figure 1 as elements 120, 122 and 124.

. Claim 10 further requires sending the information to a server and using the image information to search database information on the server, see page 6 lines 9-13. Page 6, lines 9-13, paragraph 30, describes searching the database " using the entered information". This describes how the search of the database may use different kinds of image searching techniques such as models, comparisons, vectors, or other techniques.

Claim 10 requires that search results from the server are returned to the client including price information associated with the items. Step 220 shows returning results. The returning of price information is also described in paragraph 16, for example, page 3 fourth line from the bottom through the last line. See generally page 2 lines 4-14. Hence, this returns search results from the server to the client including price information.

Claim 17 requires a computer that includes a database with image information and price information for those images. See page 3 last four lines.

Claim 17 also recites that the database includes image information for a plurality of items to be sold over the publicly available network. See paragraph 16, page 3 last five lines.

Claim 17 also requires the computer accept search information over the network see page 4 lines 17-20 and 1-5. Finally, claim 17 recites returning search results from those items from the database that match the image information and price information for those items; See page 2 lines 4-14 and last four lines of page 3 of the specification.

Grounds of Rejection to be Reviewed on Appeal

Are claims 1-20 properly rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Crill in view of Hess.

Is claim 4 properly rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Crill in view of Hess and further in view of Jain.

Argument

No amendment was filed subsequent to the November 22, 2006 official action. Note that there was a prior Pre-Appeal Brief request for review, which resulted in reopening of prosecution. The same issue is being reraised even after that Pre-Appeal brief resulted in the case being returned to the Examiner. Hence, the undersigned believes that further dialogue outside the appeals process will not be useful. Hence, this appeal brief is filed to address the existing rejections in the case.

Shopping on the Internet has become ubiquitous. What if, however, you want to buy a product and you don't know what the name of that product is? A perfect example, and the one given in the specification, is the item shown in Figure 3 of the application. What if you want one of those things? This item is difficult to describe in text or words, but easily describable visually.

The present application recognizes this problem – and the claims defines the ability to carry out various functions related to purchasing of items, even when you don't know words relating to that item, or when searching by visuals is preferable to searching by words. The present system therefore defines a visual database that allows this. Nothing in the prior art has noticed this problem, and nothing in the prior art has suggested the claimed solution. The rejection cites patents that show technology that could be used IF there was any motivation to carry out the claimed subject matter – however there is no suggestion to carry out this subject matter in the cited prior art.

There is no teaching or suggestion of the 'source of the problem'. Failure of the prior art to identify the source of a problem shows unobviousness. Eibel Process v Minnesota & Ont. Paper, 261 US 45 (1923).

Claims 1-20 stand rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Crill in view of Hess. With all due respect, this contention is respectfully traversed, the rejection provides no suggestion of the problem or the solution, and does not meet the Patent Office's burden of providing a prima facie showing of unpatentability.

Initially, applicants readily admit that the concept of searching an image database for matches is well-known in the art. In fact, if this was not well-known in the art, the present specification would have to disclose the science of precisely how to search image databases for matches. Paragraph 16 of the present specification explains that existing search techniques are used to allow searching a database of image information to obtain images of items for sale, based on the image matching.

While other aspects are claimed also, this basic feature is nowhere taught or suggested by the cited prior art. The prior art does teach various features that could be used as technology that could carry out the claimed subject matter, but the prior art does not actually teach or suggest using that technology in the way claimed. The prior art further does not disclose any reason why one might want to use that technology in the way claimed – that is, the prior art does not disclose the source of the problem being addressed by the claims.

Initially, Crill teaches a system that allows storing things on a computer and searching them. One of the aspects of Crill is that an image database can be searched for images. Again, the present specification readily acknowledges that the prior art taught searching image databases for images.

Crill teaches that this search method can be used by people "looking for a

specific image or who are attempting to find matches between an image... and images in the database". See column 1 lines 34-37 of Crill. Crill says not one word about using this image database searching technique for finding items to be purchased. Each of the claims on appeal include the limitation of using their image database searching technique for finding items to be purchased. In fact, the official action dated November 22, 2006, on page 3, admits that Crill "fails to teach a sever for items to be purchased" (sic).

The rejection alleges, however, that this is well-known in the art and would have been obvious based on Hess. With all due respect, this combination is based on hindsight, and the rejection itself is enabled by the teaching of the present application. There is not one word within either of the two references that suggests their combination in the way that is now contemplated by the rejection.

Hess teaches an online trading environment, and shows the database searches can return results. The database searches which are suggested by Hess, however, are conventional queries. Hess teaches that a user provides a textual description and terms for an item. See column 3 lines 27-29. Once the item is associated in this way, thumbnail images can be formed, see column 3 lines 38-47. In other words, Hess does produce a database. Hess includes extensive discussion of the images associated with that database. So Hess has images in his database. There is not one word in Hess, however, about searching through those images using an image search technique. In fact, the searching which is done by Hess is conventional text based searching. Nothing in Hess suggests that anything other than text based searching should be used. So where does one obtain motivation to search through the extensive images

that are obviously input in the database contemplated by the Hess patent? Certainly not from Crill. Crill shows that the science for searching image databases is well-known, but never suggests that image databases should be searched looking for items for sale. In fact, the motivation to search through Hess' images comes from the present specification.

The law on the subject is clear. The Patent Office must show reasons why it a skilled artisan, confronted with the same problems with no knowledge of the claimed invention, would select the elements from the prior art references for combination in the matter claimed. In re Rouffet, 149 F 3d 1350, (Fed Cir 1998). The Patent Office may take into account knowledge of those having ordinary skill in the art, and common sense. See for example in re Dance, 160 3d 1339 (Fed Cir 1998). However, one cannot use hindsight in making the combination.

The factual situation in this case demonstrates that hindsight was used in attempting to contend that these claims are obvious. The tools to do image database searching are available: Crill shows that a person having ordinary skill in the art would have understood that image database searching was available. Hess shows searching a database that has information about images therein. The reality is that it simply never occurred to anyone that you would obtain advantages for being able to search the image database.

One reason why it did not occur to anyone is – the problem was not suggested or obvious from the prior art. Therefore, since the problem was not suggested, it could not by any stretch of the imagination be obvious to suggest techniques to solve that problem. The understanding that this would provide advantages, in essence, the

source of the problem, comes from the present specification. Simply putting these two references together does not teach a person of ordinary skill in the art that there is even a problem therein.

A person having ordinary skill in the art would be presumed to read these references and not even find any motivation in them to use Crill as an image searching technique in order to search the images in Hess. The tactic, by itself, is completely unobvious.

The rejection says that Crill fails to teach a server for items to be purchased but states that these "limitations are well-known in the art". The point is, however, that Crill provides no teaching that would suggest to a person of ordinary skill in the art that there would be any advantages or use from searching through the images to find images of items for sale. Similarly, Hess shows images in the database, it shows thumbnails and returns search results, but says not one word about searching the image database -- even though technology for doing so is clearly available. The contention that it would have been obvious to combine these references "in order to allow prospective purchasers to make a more informed decision by providing an improved user interface for online commerce sites" (sic) is quite simply based on hindsight, since the source of the problem is never revealed in either Crill or in Hess.

The claimed subject matter is about searching for items to buy. The "informed decision" relied on by the official action does not appear in Crill or in Hess. In fact, Hess itself shows the unobviousness of this combination. Hess explains how difficult it would be to select items to view their images individually. Instead, Hess suggests forming a thumbnail of the original image of the item and including that thumbnail as

part of the summary listing that is returned as search results. See column 3 lines 35-47 of Hess. Hess says not one word about searching through the images.

Hess also describes other searching, column 4 lines 28-38. The point of Hess is to return thumbnails as part of the search results. This is wholly different than the claimed technique of searching image databases. Hess describes in detail his different features including item maintenance (column 6), item registration (column 7), image harvesting (columns 7-9), item presentation (column 9), gallery presentation format and found database access (columns 9-10). Nowhere is there any teaching or suggestion of the claimed feature that requires "using said image information to search said database associated with the server for items to be purchased which meet criteria specified in said image information". In fact, the recognition of the source of this problem is an important part of what is patentable in the present system, and there is not one word of the source of this problem in either Crill or Hess.

Therefore, making the hypothetical combination of Crill in view of Hess would simply teach a Crill type image system, along with Hess's teaching that one should return image thumbnails as part of the search. Neither of these items of prior art recognizes the problem of how to find something that cannot be easily discussed in textual form. Since there is no teaching or suggestion of this problem, there is certainly no teaching or suggesting to modify Crill to "search the database for items to be purchased which meet criteria specified in said image information" quoting from claim 1.

Even if, hypothetically, Hess did teach such a system, the idea of using Crill's techniques with product sales feature is entirely based on the teaching of the present specification, and the present specification's identification of a problem. Claim 1

defines image information and searching a database using the image information for items to be purchased. This source of this problem: that a database of image item information could be searched for items to be purchased, is in no way taught or suggested by the cited prior art. As described in the specification, this produces significant advantages including ways to find items even when a prospective purchaser does not know the right words to describe those items. Nothing in the prior art discloses this problem, and the solution to this problem that is posed by the Patent Office's hypothetical combination of prior art is quite simply based entirely on hindsight.

Again, Crill says not one word about using his image searching feature for "items to be purchased which meet criteria specified in said image information".

Hess teaches not one word about using any image searching feature for to find items to be purchased. Neither reference suggests the source of this problem. Since neither reference suggests it, the hypothetical combination certainly cannot teach it. The only thing that teaches the source of this problem is the present specification.

Therefore, to summarize, this subject matter is completely unsuggested by the cited prior art, the rejection is wholly based on the teaching of the present specification, and does not properly rely on the scope and contents of the cited prior art. Accordingly, the Patent Office has not met their burden of providing a prima facie showing of unpatentability. Moreover, the claimed technique has the advantage of finding items that cannot easily be described in any other way, or more easily finding items when there are multiple words that can be used to find such an item.

Consider the advantage of the present system. Claim 1 can be used, for example, to allow user to obtain an image of something they want to purchase without

knowing the name of that thing. Claim 1 can be used to allow a purchaser to obtain an image of something they want to buy, even when there are many names for that thing. That image can be used to search the database for items which look like that image. In this way, a user may be able to find items on a website in a way that is not been possibly previously possible. This application is possible using the system of claim 1. No recognition of this problem for the source of the problem is taught by the cited prior art. For these reasons, the cited prior art, no matter how combined, does not fairly suggest the limitations noted above from claim 1.

The dependent claims should be allowable for similar reasons.

Claim 3 and other claims like claim 3 define exclusion information to exclude from the search results. The rejection attempts to read this on the "cropping" that is taught by Crill. However, the cropping taught by Crill takes information out of the image. This is entirely different than the words of the present claims which require that the image information (note that the image information is what is entered at the client in claim 1) "includes exclusion information to exclude from said search results, and said server forms said search results which do not include said exclusion information".

Crill may crop the image, but the cropping of the image is not entering exclusion information to exclude from the search results, or entering ANYTHING, for that matter. Moreover, Crill does not enter the exclusion information as "one of said parameters associated with said image information...". A cropping is carried out in the image in Crill, not on the image information used to initiate the search as claimed, and certainly not as a parameter associated with the information used to carry out the search. This rejection simply IGNORES this important claim language.

Claim 4 requires selection of a more important image portion as one of the parameters associated with the image information used for the search. Claim 4 was rejected over Crill in view of Hess and further in view of Jain.

initially, it is noted that the rejection alleges that each of claims 1-20 are rejected based on Crill in view of Hess, but then on page 5 admits that "Crill and Hess do not explicitly teach said client forms search results which are weighted according to said more important image portion", that is, using the words of claim 4 and 12. With all due respect, the rejection is logically inconsistent on this point.

In any case, Jain teaches a system of classifying images, and determining which parts are similar. The rejection draws attention to column 18 line 63 through column 9 line 11 of Jain. This portion discusses the compare between two images which computes "overall visual similarity for two given images". This creates a weighted overall score.. A heterogeneous compare compares schemas for images with similar primitives. A threshold compare finds a similarity threshold. Query optimization is described beginning at line 30, and describes how the different primitives may be used as an initial search comparison. However, these thresholds and primitives provide no teaching or suggestion of selecting a more important image portion, as claimed. The rejection also refers to Jain 's column 3 lines 30-40. This refers to a similar scoring based on similarity between different images. The score may be used to rank orders of the degree of similarity, but this has nothing to do with selecting a most important part of the image portion as one of the search parameters, as claimed. Jain teaches ranking the images based on the return search parameters, not selecting a more important image portion

Claim 9 recites an electronic commerce site and price information associated with the search results. This further emphasizes the distinction over the cited prior art. The rejection only says that "these limitations are well-known in the art and would have been an obvious modification...". However, the prior art has not one word about returning search results from an image search, including price information. These features are not at all known in the art, and this claim is even further patentable over the cited prior art.

Claim 10 defines entering image information, sending that image information to a server and returning search results from the server including price information associated with the items in the search results. As described above, Crill in view of Hess teaches nothing about searching using image information and returning price results associated with items in the search result. See the detailed arguments above.

The other dependent claims should be allowable for reasons above. Claim 12 should be allowable for reasons discussed above with respect to claim 4, and claim 13 should be allowable for reasons discussed above with respect to claim 3.

Claim 15 defines that the image information which is used as part of the search includes "size information" so that the user can use the size of the items they are searching as one of the search items. The rejection draws attention to Crill's column 7 lines 17-31. This cited section, however, simply teaches that a user can draw a circle by first clicking on a drawing icon representing a circle and then clicking and dragging the computer mouse to change its size. There is not one word about entering size information, much less searching Crill's database or any other database based on such size information. That rejection, with all due respect, is wholly improper and incorrect.

Claim 17 defines a computer that searches a database that includes price information and returns search results to match the searching information and price information. As noted above, this subject matter is in no way taught or suggested by the cited prior art, and the source of the problem is never taught or suggested by the cited prior art. The dependent claims which depend from claim 17 should be allowable for similar reasons.

In response to arguments in the final official action, the Patent Office apparently takes issue with applicant distinguishing over the prior art by discussing the prior art individually. It should be apparent that applicant is discussing the hypothetical combination of prior art. With all due respect, it is not understood how such a hypothetical combination of prior art could even be discussed without discussing the references individually. Each reference has to stand on its own. While the Patent Office certainly is entitled to make combinations of prior art when there is motivation to do so, there is no way to discuss these references without discussing them individually.

For reasons that should hence be evident from the above, it is respectfully suggested that the rejection is in error and should be reversed.

Please charge any unpaid fees due in connection with this response to Deposit Account No. 50-1387.

Respectfully submitted,

Date: _10/19/07_____

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CLAIMS APPENDIX

1. A system, comprising:

a client which allows entry of image information; and

a server, including a database associated with the server, said server connected to said client to receive said image information and using said image information to search said database associated with the server for items to be purchased which meet criteria specified in said image information and forming search results based on said image information.

2. A system as in claim 1, wherein said client allows forming initial image information, and subsequently setting parameters associated with said initial image information using a user interface.

3. A system as in claim 2, wherein one of said parameters associated with said image information includes exclusion information to exclude from said search results, and said server forms said search results which do not include said exclusion information.

4. A system as in claim 2, wherein one of said parameters includes a selection of a more important image portion, which is more important than other image portions, and said client forms search results which are weighted according to said more important image portion.

5. A system as in claim 2, wherein one of said parameters includes an image size, and said client forms search results which only include results having said specified image size.

6. A system as in claim 2, wherein said client includes a scanner to allow entry of said initial image information.

7. A system as in claim 2, wherein said client includes a tablet to allow entry of said initial image information.

8. A system as in claim 2, wherein one of said parameters associated with said image information includes a color, and said server operates to find items based on said color information in addition to said image information.

9. A system as in claim 1, wherein said server is associated with an electronic commerce site, and said search results include price information for items associated with said search results.

10. A method, comprising:
entering image information to a client on the network; and
sending said image information to a server on said network and using said image information to search database information on said server on said network; and

returning search results from said server to said client including price information associated with items in said search results.

11. A method as in claim 10, wherein said entering image information comprises entering an initial image, and entering parameters associated with the search of the initial image.

12. A method as in claim 10, wherein said entering image information comprises entering an initial image to be searched, and selecting a part of the initial image information which represents a more important part of the image information.

13. A method as in claim 10, wherein said entering image information comprises entering an initial image to be searched, and entering exclusion information to be excluded from said search.

14. A method as in claim 13, wherein said exclusion information includes image information.

15. A method as in claim 10, wherein said entering image information includes entering an initial image, and entering size information associated with said initial image, wherein said search results are based on said size information.

16. A method as in claim 11, further comprising displaying said image information as part of a graphical user interface, and using said graphical user interface to enter said parameters.

17. A system, comprising:

a computer, connected to a publicly available network, and including a database associated therewith, said database including image information for each of a plurality of items to be sold over said publicly available network, and price information for each of said items, said computer accepting searching image information over said publicly available network, using said image information to search said image information in said database, to return search results including items from said database which match said searching image information and price information for each of said items from said database which match said searching information.

18. A system as in claim 17, wherein said searching image information includes an image, and additional information about the searching, in addition to said image.

19. A system as in claim 18, wherein said additional information includes exclusion information indicative of excluded items to be excluded from said searching.

20. A system as in claim 18, wherein said additional information includes color information indicative of the desired colors to be included in the searching.

EVIDENCE APPENDIX

None

RELATED PROCEEDINGS APPENDIX

None